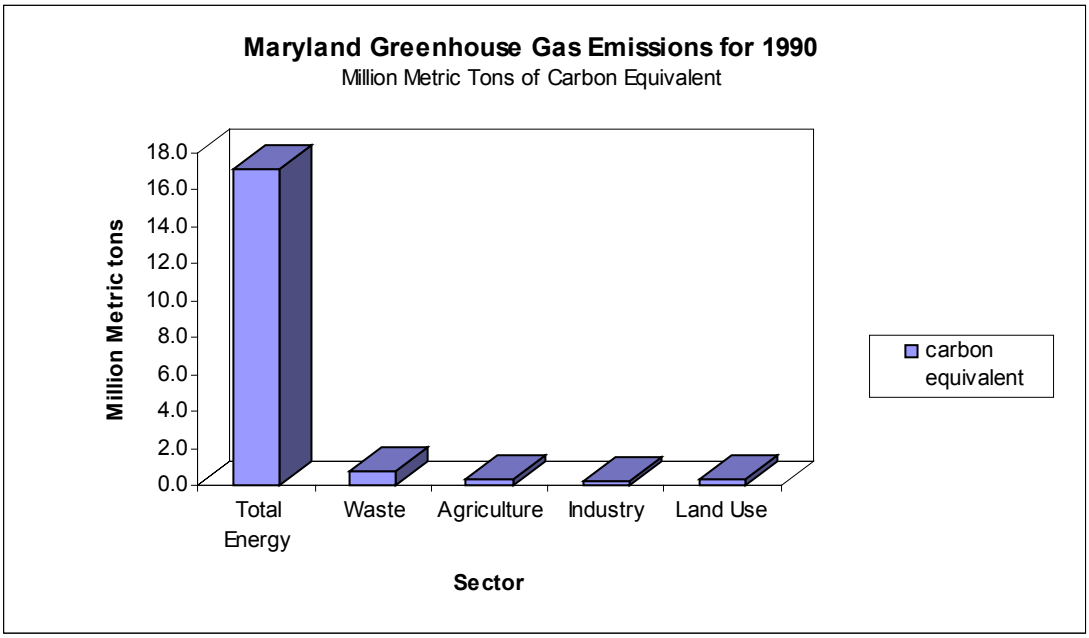
MARYLAND GREENHOUSE GAS EMISSIONS AND SINKS INVENTORY: SUMMARY



The report *"Maryland Greenhouse Gas Emissions: Estimates for 1990"* provides a detailed inventory of greenhouse gas emissions and sinks for Maryland in 1990. Emissions were estimated using methods from EPA's 1992 guidance document ***State Workbook: Methodologies for Estimating Greenhouse Gas Emissions***. In 1990, Maryland emitted 18.9 million metric tons of carbon equivalent (MMTCE). Maryland estimated emissions of nearly 0.2 MMTCE from biomass fuels and other sources, as well as 7.8 MMTCE of emissions from ozone-depleting substances. Emissions from these sources are not included in the reported total or the table below.[1]

The principal greenhouse gases were carbon dioxide, comprising 63.6 million metric tons (17.4 MMTCE), and methane, with 0.2 million metric tons (1.3 MMTCE). Other emissions included less than 0.01 million metric tons of nitrous oxide (0.3 MMTCE).

[1] Note that the state of the art emission inventory method has advanced since Maryland completed its inventory; therefore, we have made the following adjustments to Maryland's emission estimates. First, we excluded emission estimates for sources not covered by the most recent inventory guidance (http://www.epa.gov/ttnchie1/eiip/techrep.htm#green). These emissions include carbon dioxide from landfills and nitrous oxide from soil disturbances. Second, we used updated carbon coefficients for some fuel types. Third, we used updated values for global warming potentials.

Maryland Greenhouse Gas Emissions for 1990

BY SECTOR	CO2 (MMTCE)	Methane (MMTCE)	Nitrous Oxide (MMTCE)	HFCs, PFCs, and SF6 (MMTCE)	Total GHG Emissions (MMTCE)
Energy - Residential	1.6	*	*	*	1.6
Energy - Commercial	0.7	*	*	*	0.7
Energy - Industrial	3.5	*	*	*	3.5
Energy - Transport	5.9	*	*	*	5.9
Energy - Utility	5.1	*	*	*	5.1
Energy - Exported Electricity	*	*	*	*	*
Energy - Other	*	0.2	0.2	*	0.4
Total Energy	**16.7**	**0.2**	**0.2**	*	**17.2**
Waste	*	**0.8**	*	*	**0.8**
Agriculture	**0.0**	**0.3**	**0.0**	*	**0.4**
Industry	**0.2**	*	*	*	**0.2**
Land Use	**0.4**	*	*	*	**0.4**
Total	**17.4**	**1.3**	**0.3**	*	**18.9**

All emissions are reported in million metric tons of carbon equivalent (MMTCE).

An asterisk (*) indicates that emissions of the gas from this sector were zero, insignificant, or not reported.

Emissions due to coal mining and extraction of natural gas and oil are included in the energy-other figures, and emissions from biofuel combustion are excluded.

The major source of carbon dioxide emissions was fossil fuel combustion (97%), with minor emissions from land-use conversion (2%) and from cement production and lime manufacture (1%). Fossil fuel combustion for transportation and utilities comprised over 65% of the carbon dioxide emissions from fossil fuel combustion, primarily from use of coal and petroleum. Contributors to methane emissions were landfills (60%), manure management (15%), coal mining (13%), domesticated animals (10%), and fossil fuel combustion (2%). Nitrous oxide emissions were accounted for by fossil fuel combustion (87%) and fertilizer use (13%).

Maryland emissions in 1990 were 4.0 MTCE per capita, compared to 1990 U.S. emissions of 6.4 MTCE per capita.